

# ASIA'S JOURNEY TO PROSPERITY

Policy, Market, and Technology over 50 Years

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# Presentation outline

## 1. 50 years of Asian development

- Asia's key development **achievements**
- What **explains** Asia's economic success
- Issues subject to extensive **debate**
- Asia's **challenges** in post COVID-19 era

## 2. Summary and further readings

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1. Overview of the Asian Development Bank

2. 50 years of Asian development

- Asia's key development achievements
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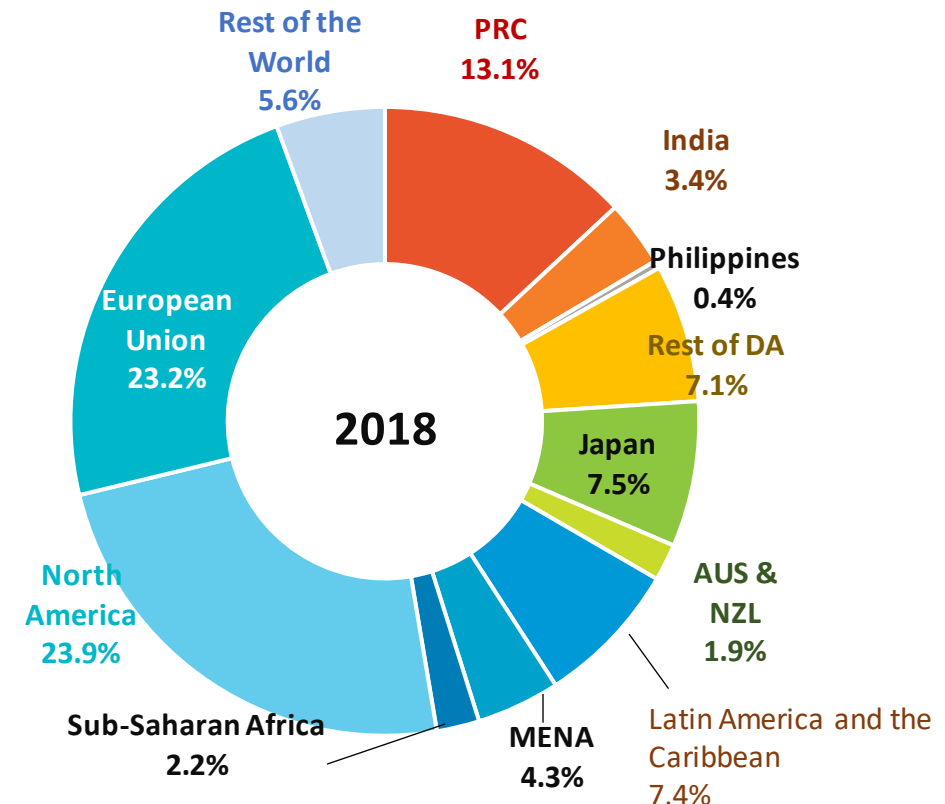
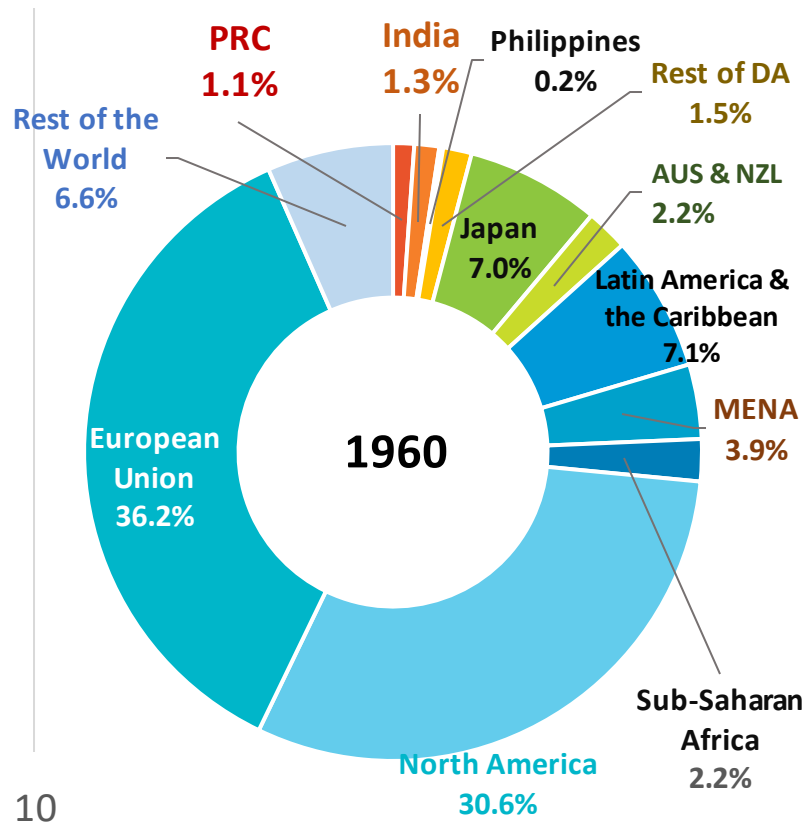
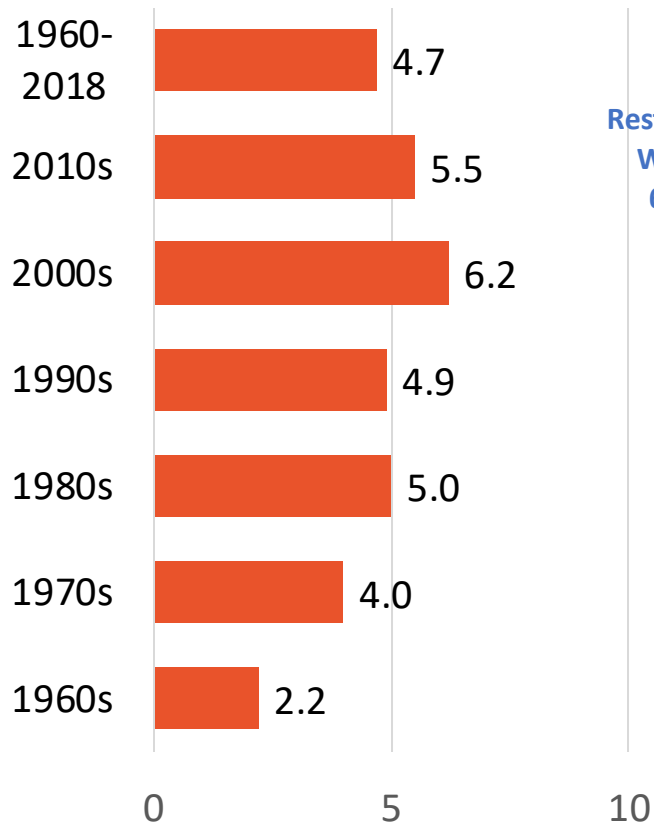
3. Summary and further readings

# Asia's key development achievements

- Rapid economic growth led to rising share in global GDP...

Developing Asia's share in global GDP increased from 4% to 24% in 1960-2018; including Japan, Australia and New Zealand, Asia's share rose from 13% to 34%.

Average Annual per Capita GDP growth (%)



AUS = Australia, DA = developing Asia, GDP = gross domestic product, MENA = Middle East and North Africa, NZL = New Zealand, PRC = People's Republic of China.

Sources: Asian Development Bank. Key Indicators Database. <https://kidb.adb.org/kidb> (accessed 2 August 2019); World Bank. World Development Indicators. <https://data.worldbank.org> (accessed 2 August 2019); and Asian Development Bank estimates.

# Asia's key development achievements (cont.)

- ... and improvement in broad development indicators.

	Developing Asia			
	1960	1980	2000	2018
<b>Per capita GDP (constant 2010 \$)</b>	330	647	1,762	4,903
<b>Extreme poverty rate (% of population)</b>	...	68.1	33.1	6.9
<b>Life expectancy at birth (years)</b>	45.0	59.3	65.8	71.8
<b>Infant mortality (per 1,000 live births)</b>	137.8	80.1	48.1	26.2
<b>Mean years of schooling (age 20–24)</b>	3.5	6.0	7.7	8.9

... = data not available, GDP = gross domestic product.

Notes: Poverty refers to the rate of extreme poverty using the \$1.90 per day international poverty line at 2011 purchasing power parity for 1981, 2002, and 2015. Life expectancy refers to life expectancy at birth in years. Infant mortality rate refers to infant deaths per 1,000 live births. Mean years of schooling are for those aged 20–24; data for 2018 refer to 2010.

Sources: United Nations, Department of Economic and Social Affairs, Population Division. 2019. *World Population Prospects 2019*. Online Edition. <https://population.un.org/wpp/> (accessed 23 August 2019); World Bank. PovcalNet Database. <http://iresearch.worldbank.org/PovcalNet/home.aspx> (accessed 28 September 2019); World Bank. World Development Indicators. <https://data.worldbank.org> (accessed 30 September 2019); and Barro, R., and J.-W. Lee. Database Version 2.2. <http://www.barrolee.com> (accessed 30 September 2019).



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# What explains Asia's economic success?

- Peace and stability, especially after the Viet Nam War
- Favorable demographic conditions
- Freer trade and investment policies in advanced countries
- A low-income level providing potential to catch up
- **Better policies and stronger institutions for market-based growth**

# (1) Relying on markets and private sector as engines of growth, with proactive state support to address market failure

- In the last half century, Asian development policy shifted from state-led industrialization to market-oriented growth

**Late 1940s–late 1950s:**  
Post-war political independence, reconstruction, and start of state-led industrialization and import substitution.

**Late 1950–late 1970s:**  
Export promotion and market-led growth in Japan and “four tigers”, and state control and inward orientation in the People’s Republic of China (PRC), India, and many other countries.

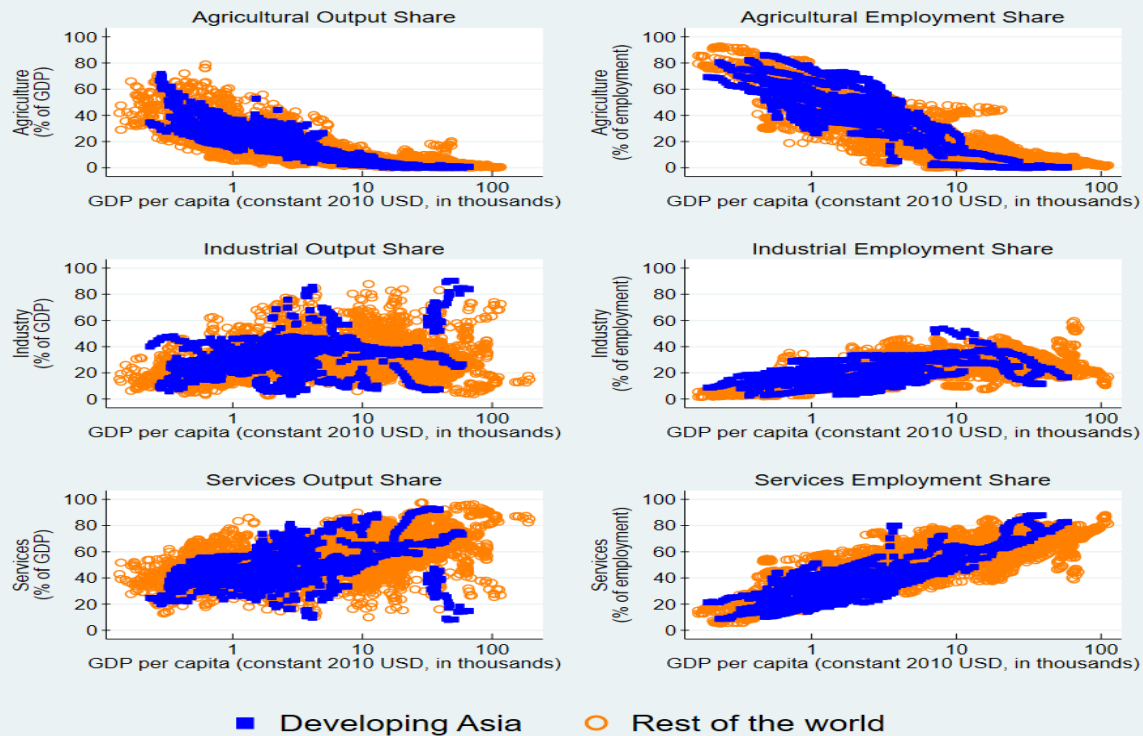
**Late 1970s–early 1990s:**  
“East Asian Miracle” fully recognized, and first wave of opening and market-oriented reform in the PRC, Viet Nam, India, and Central Asia.

**Early 1990s–2007:**  
Broadening of opening and market-oriented reform, growing trade and capital flows, Asian financial crisis, and post-crisis reform.

**2008–present:**  
Global financial crisis, Asia leading global growth, promotion of inclusive growth and good governance, and rethinking positive role of the state in overcoming market failure.

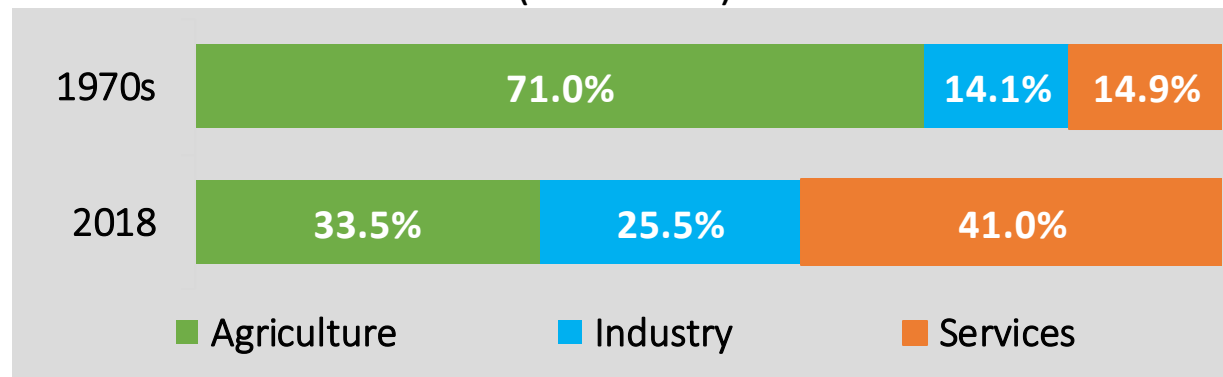
# (2) Promoting structural transformation

## Output and Employment Shares, 1970-2018



- Structural transformation (ST) is the primary driver of growth across the world.
- Stylized fact about ST: Over time, resources are transferred from agriculture to industry (up to a certain level) and services, and, within each of the three sectors, from low- to high-productivity production.
- Asia is no exception, but with a faster pace.

### Share in Employment (% of total)



GDP = gross domestic product, USD = United States dollar.

Sources: For output shares: World Bank. World Development Indicators. <https://data.worldbank.org/indicator> (accessed 2 August 2019); United Nations (UN). UN Statistics Division Database. <https://unstats.un.org> (accessed 28 August 2019); national sources; and Asian Development Bank estimates. For employment shares: International Labour Organization (ILO). ILOSTAT Database. <https://www.ilo.org/ilostat> (accessed 28 August 2019); Organisation for Economic Co-Operation and Development (OECD). OECD Employment and Labour Market Statistics. [https://www.oecd-ilibrary.org/employment/data/oecd-employment-and-labour-market-statistics\\_ifs-data-en](https://www.oecd-ilibrary.org/employment/data/oecd-employment-and-labour-market-statistics_ifs-data-en) (accessed 28 August 2019); Timmer, M. P., G.J. de Vries, and K. de Vries. 2015. Patterns of Structural Change in Developing Countries. In Weiss, J., and M. Tribe, eds. *Routledge Handbook of Industry and Development*. Abingdon: Routledge. pp. 65–83 (for the Groningen Growth and Development Center 10-Sector Database) (accessed 28 August 2019); and Asian Development Bank estimates.

## (2) Promoting structural transformation (cont.)

- Structural transformation also involves shift from low- to high-productivity production within each sector, through technological progress

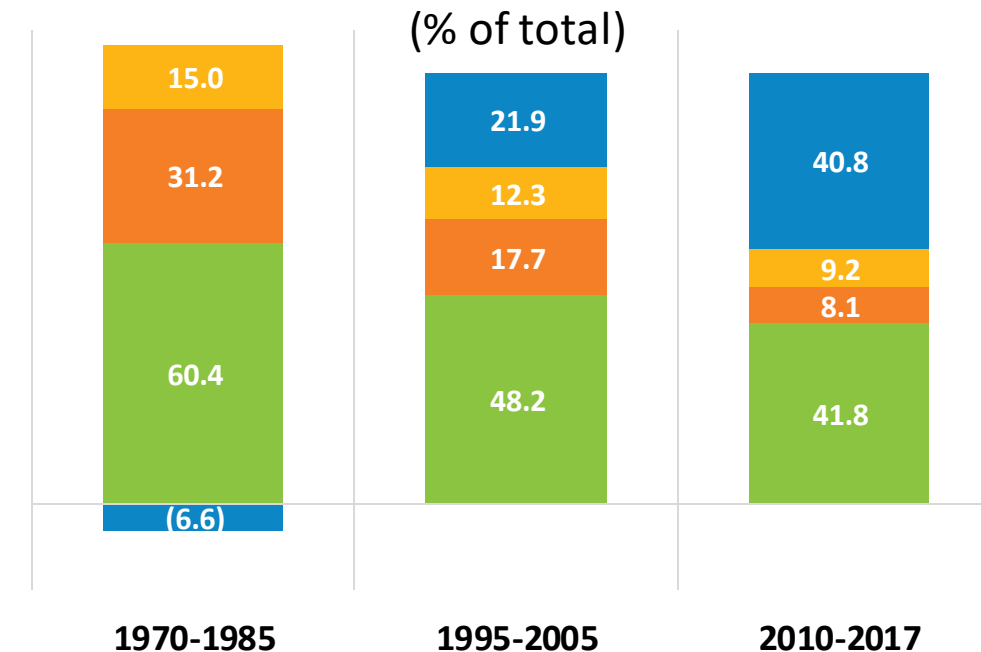
□ “Growth accounting” framework to decompose GDP growth into:

- Physical capital accumulation (green)
- Labor input increase (orange)
- Human capital accumulation (yellow)
- Total Factor Productivity (blue)

□ Asian economies relied on

- first, physical capital accumulation and labor inputs
- later, broad technological progress

**Contribution to Asia’s GDP Growth**



■ Physical capital ■ Labor ■ Human capital ■ TFP

( ) = negative, GDP = gross domestic product, TFP = total factor productivity.  
Sources: Estimates based on data from Feenstra, R. C., R. Inklaar, and M. P. Timmer. 2015. The Next Generation of the Penn World Table. *American Economic Review*. 105 (10). pp. 3150–3182. <http://www.ggd.net/pwt> (accessed 1 July 2019); and Asian Productivity Organization (APO). APO Database. <https://www.apo-tokyo.org/wedo/measurement> (accessed 1 July 2019).

# (3) Investing in productive capacity

- High-growth Asian economies made large investments in physical capital, financed largely by domestic savings.

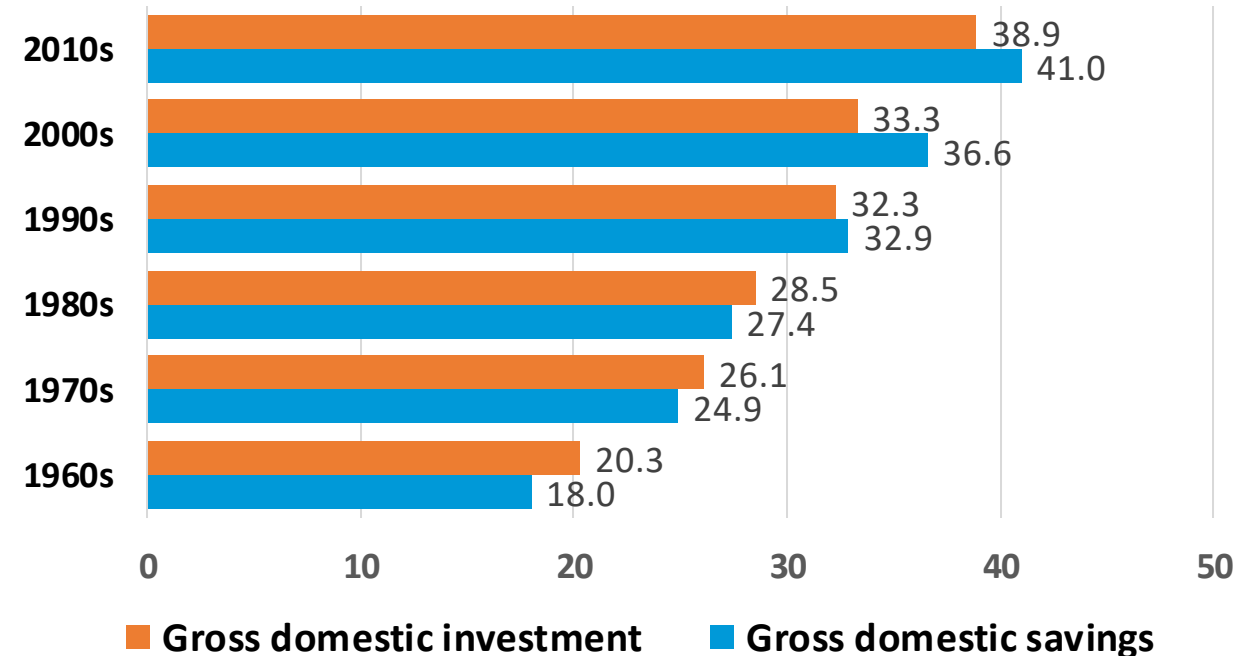
	Physical capital stock (2011 constant \$, trillion)		Capital stock growth (%)
	1960	2017	1960–2017
Developing Asia	3.9	176.0	6.9
Central Asia	...	2.4	...
East Asia	1.3	108.2	8.1
PRC	1.0	94.9	8.3
South Asia	1.4	34.8	5.7
India	1.2	29.9	5.9
Southeast Asia	1.1	30.5	6.0

... = data not available, PRC = People's Republic of China.

Notes: Data are not available for the Pacific island countries. Data for 1960 are not available for Central Asia and Bhutan, Brunei Darussalam, Cambodia, Maldives, Mongolia, and Myanmar.

Sources: Feenstra, R., R. Inklaar, and M. P. Timmer. 2015. The Next Generation of the Penn World Table Version 9.1. *American Economic Review*. 105 (10). pp. 3150–3182 (accessed 4 May 2019); and Asian Development Bank estimates.

Gross Domestic Savings and Investment  
(% of GDP)



GDP = gross domestic product.

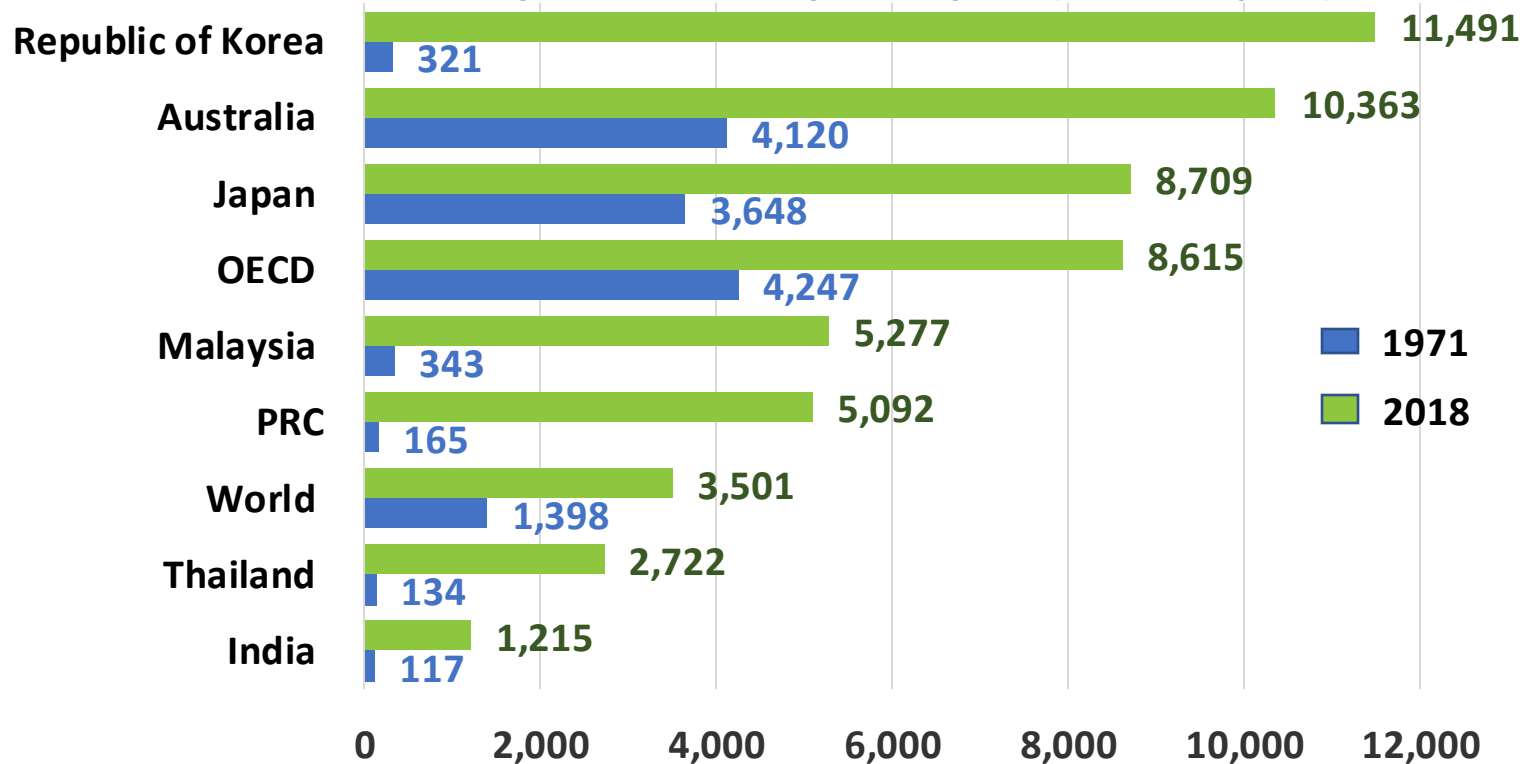
Note: Data for Taipei, China refer to gross national savings.

Sources: World Bank. World Development Indicators. <https://data.worldbank.org> (accessed 2 August 2019). For Taipei, China: Directorate-General of Budget, Accounting and Statistics.

### (3) Investing in productive capacity (cont.)

- A key part of physical capital investment was for infrastructure—transport, power, water and sanitation, and telecommunications.

Electricity Generation per Capita (kWh/capita)



- During 1971–2018, per capita electricity generation increased by 35 times in the Republic of Korea, 30 times in the PRC, 19 times in Thailand, 14 times in Malaysia, and 9 times in India, significantly narrowing the gaps with advanced countries.

kWh = kilowatt-hour, OECD = Organisation for Economic Co-operation and Development, PRC = People's Republic of China.

Note: Per capita electricity generation estimated with Enerdata's electricity generation data and World Bank's population data.

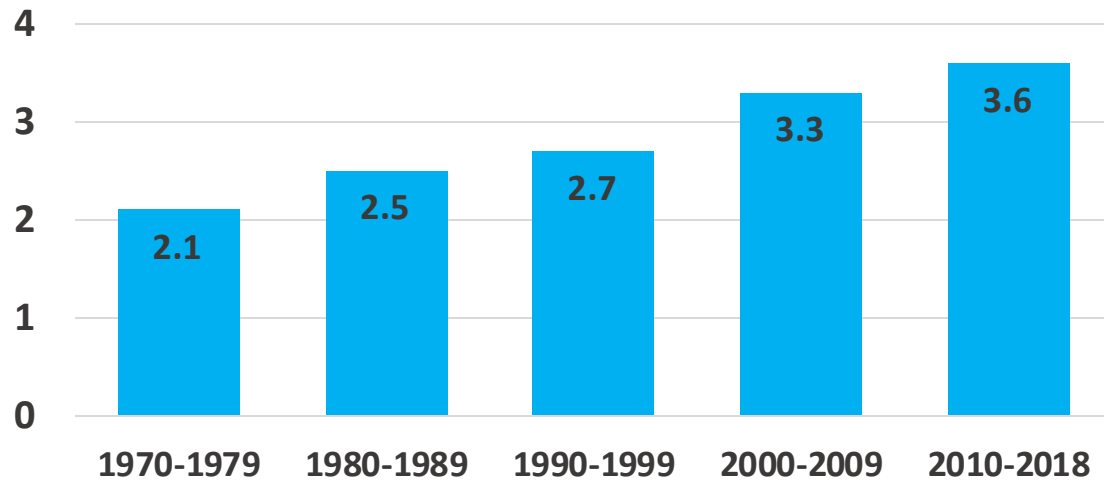
Sources: Enerdata. 2019. *Global Energy Statistical Yearbook*. <https://www.enerdata.net/publications/world-energy-statistics-supply-and-demand.html>; and World Bank. World Development Indicators.

<https://data.worldbank.org/> (accessed 29 October 2019).

# (4) Building human capital

- Many Asian economies put efforts to build human capital by making education a basic right through compulsory education, investment in schools, and education reform.

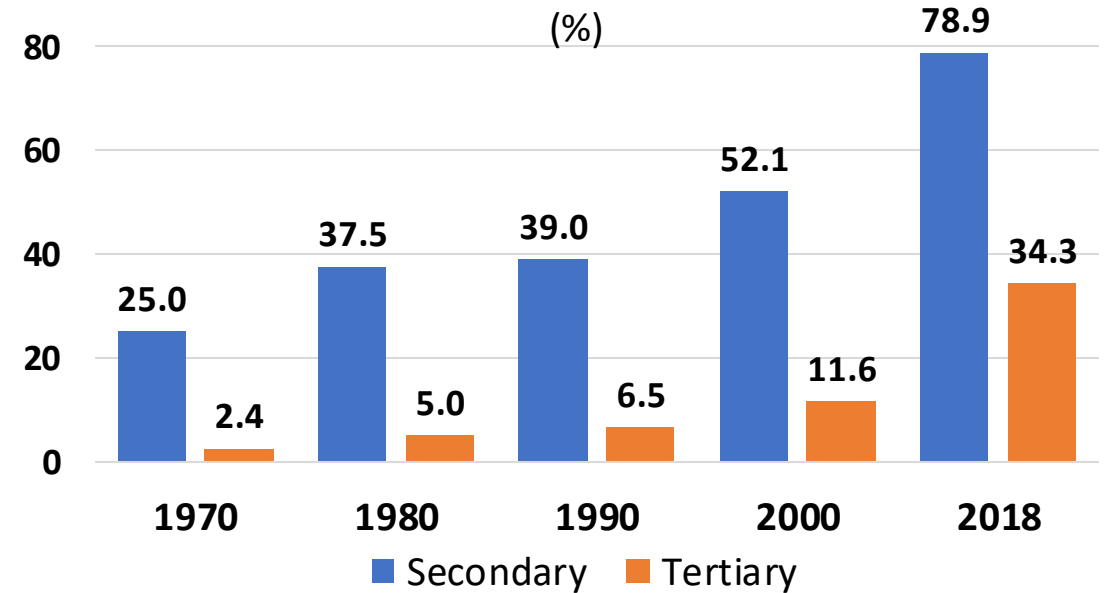
**Public Spending on Education**  
(% of GDP)



GDP = gross domestic product.

Sources: Asian Development Bank. Key Indicators Database. <http://kidb.adb.org> (accessed 16 September 2019); World Bank. World Development Indicators Database. <http://data.worldbank.org> (accessed 2 August 2019); Asian Development Bank estimates; and for Taipei, China: Directorate-General of Budget, Accounting and Statistics.

**Gross Enrollment Ratio, Both Sexes**  
(%)



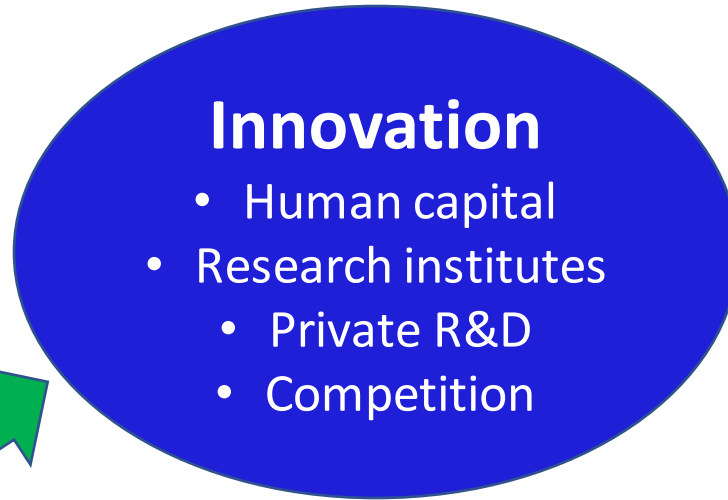
Note: Where no data are available for the specific year headings, +/- 5-year available data are reflected. Rates can be more than 100% because of the enrollment of overage students and/or international students. Sources: United Nations Educational, Scientific and Cultural Organization (UNESCO) Institute for Statistics (UIS). UIS Stat Data base. <http://data.uis.unesco.org/> (accessed 2 August 2019); Asian Development Bank estimates; for the People's Republic of China (2018) and Japan (all years): World Bank. World Development Indicators. <https://data.worldbank.org> (accessed 2 August 2019); for Singapore: Government of Singapore, Ministry of Education. *Education Statistics Digest 2018*; and for Taipei, China: Ministry of Education. *2018 Education Statistical Indicators*.

- During 1970s–2010s, developing Asia's public spending on education increased from 2.1% to 3.6% of GDP. Public spending on education contributed to rising school enrollments at all levels.

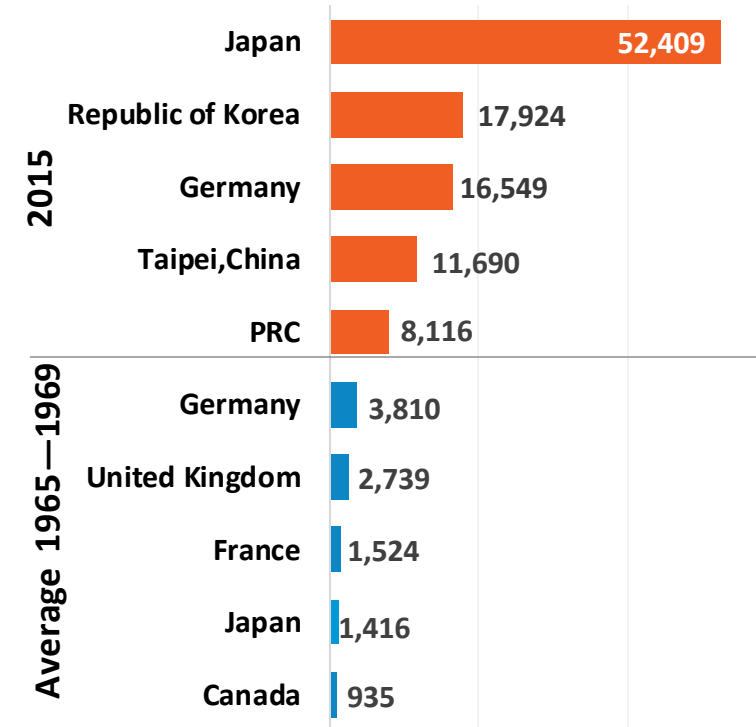


# (5) Accelerating technological progress

- Leading Asian economies achieved accelerated technological progress



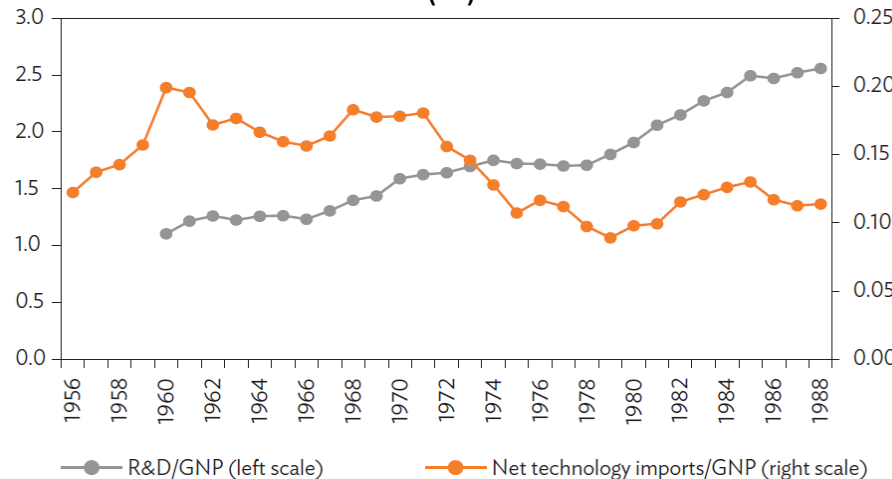
## Top 5 Patent Grantees in the United States



## Number of patents granted in the US

FDI = foreign direct investment, GNP = gross national product, PRC = People's Republic of China, R&D = research and development, TC = technical cooperation, US = United States.

**Adoption and Innovation of Technologies in Japan, 1956–1988 (%)**

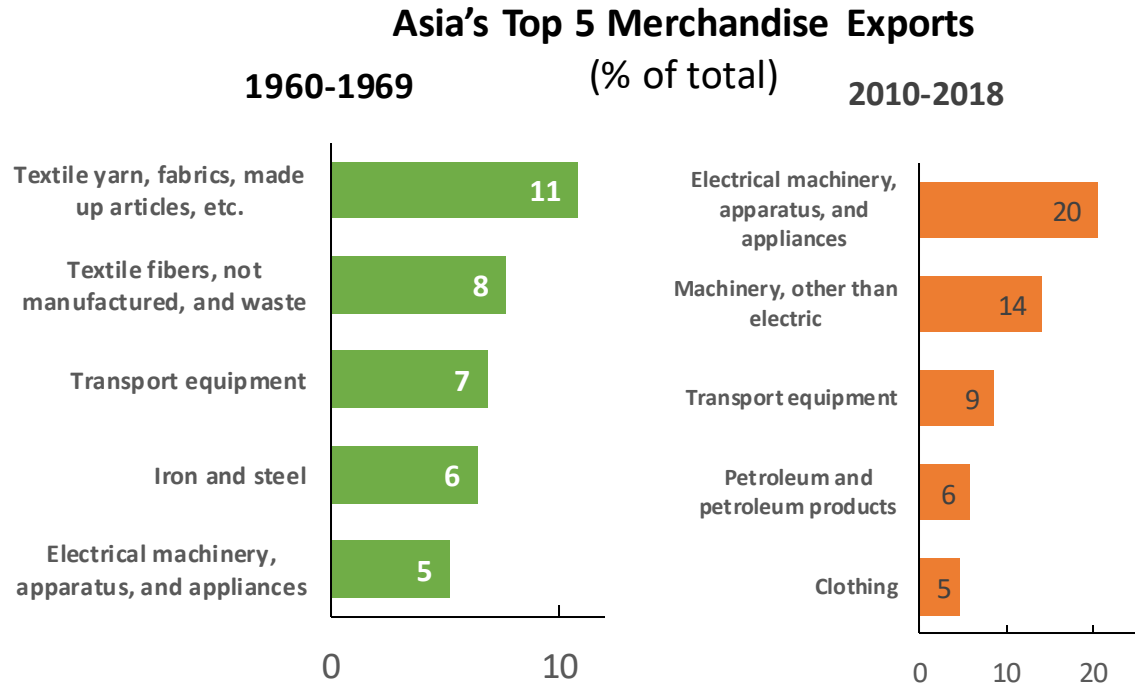


## Adoption

- Students/people abroad
  - Licensing design/patent
- Reverse engineering
- Machinery imports
  - FDI, TC aid
  - Trade

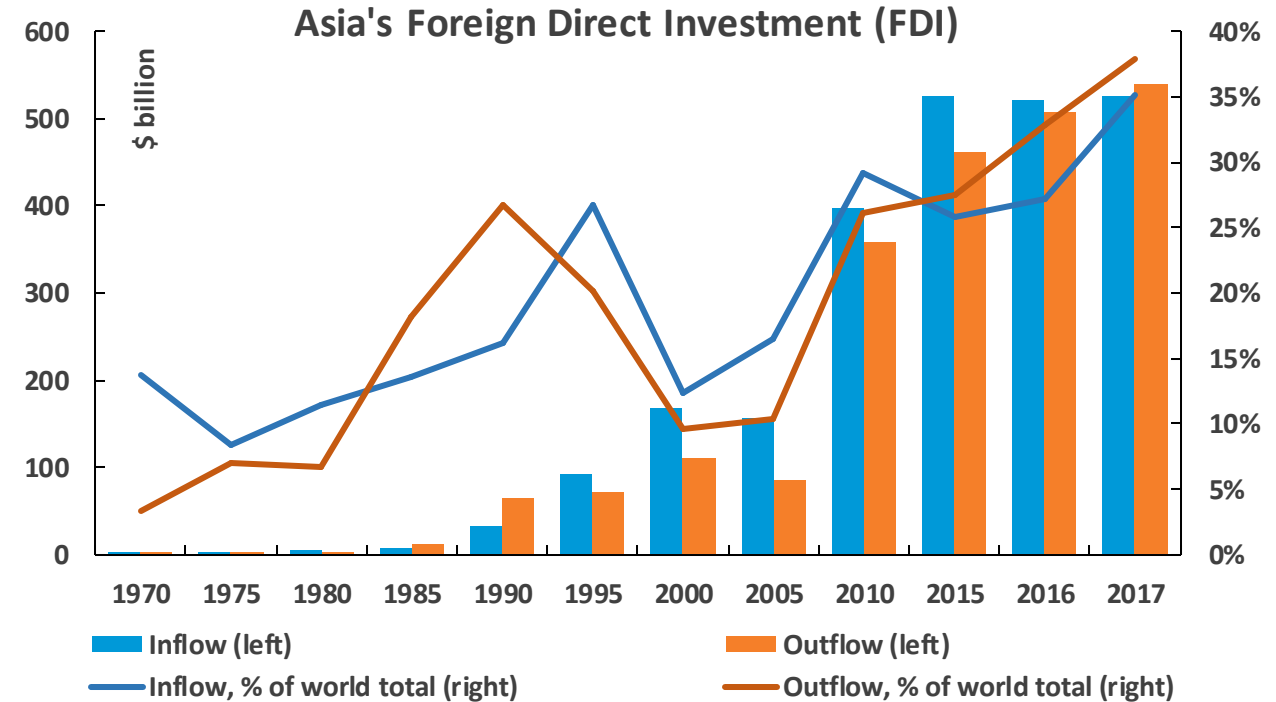
# (6) Opening trade and investment

- High-growth Asian economies all maintained open trade and investment regimes, making Asia a center of global manufacturing production and value chains.



Source: World Bank. World Integrated Trade Solution. <https://wits.worldbank.org/> (accessed 4 November 2019).

- They initially promoted exports of labor-intensive manufacturing products, and over time, moved up to export more sophisticated products such as cars, electronics, and machines. In the last 2–3 decades, they participated in global value chains.



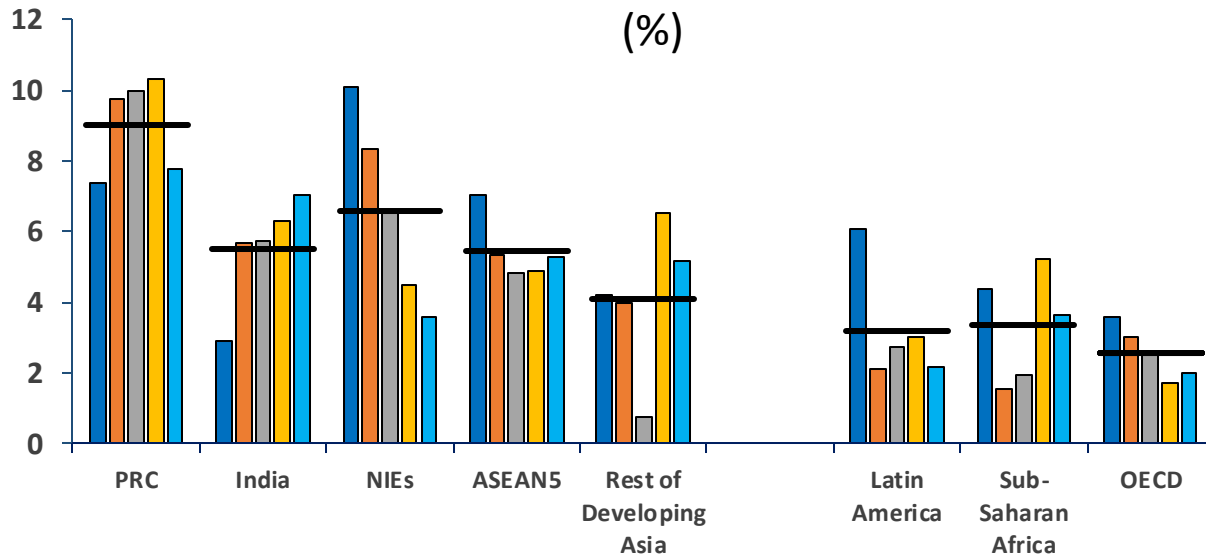
Note: Asia refers to the 49 Asian Development Bank regional members for which data are available.  
Sources: Asian Development Bank estimates; and United Nations Conference on Trade and Development. UNCTAD Statistics. <https://unctadstat.unctad.org> (accessed 30 August 2019).

- To attract FDI, they set up special economic zones (SEZs) and provided tax incentives, making developing Asia one of the most attractive FDI destinations, accounting for 35% of the world total in 2017.

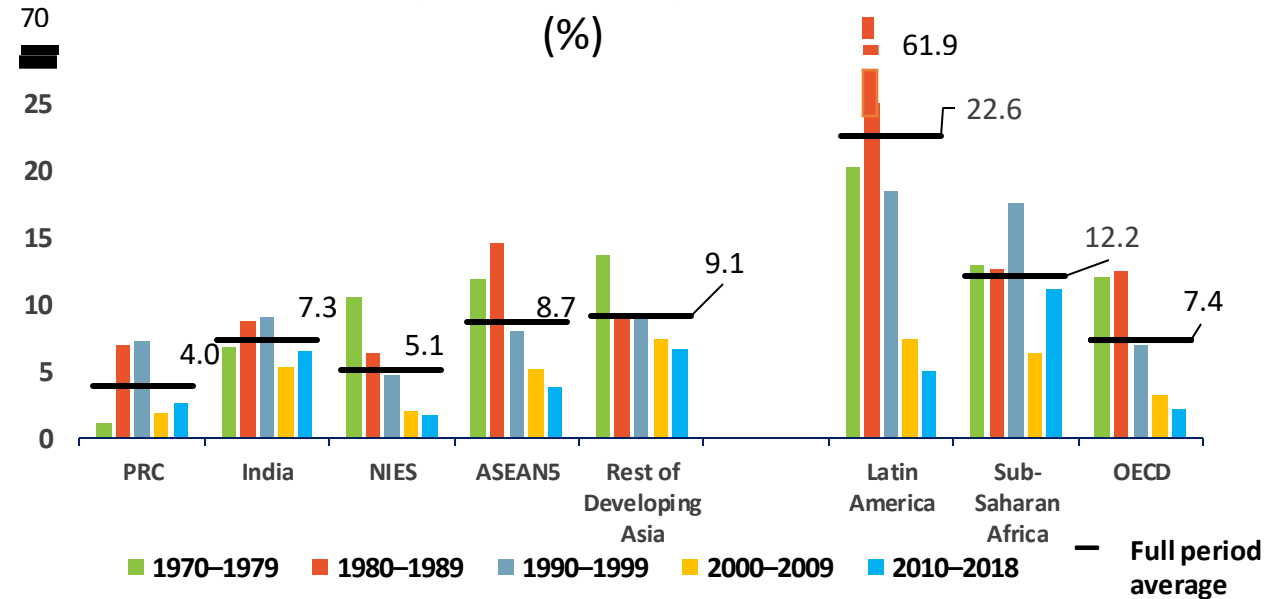
# (7) Maintaining macroeconomic stability

- Compared with other developing regions, Asia did better in macroeconomic management, whether looking at growth, inflation, or frequency of economic crises

**Average Annual GDP Growth by Decade**



**Average Inflation by Decade**



■ 1970-1979 ■ 1980-1989 ■ 1990-1999 ■ 2000-2009 ■ 2010-2018 — Full-Period Average

ASEAN = Association of Southeast Asian Nations, GDP = gross domestic product, NIEs = newly industrialized economies, OECD = Organisation for Economic Co-operation and Development, PRC = People's Republic of China.

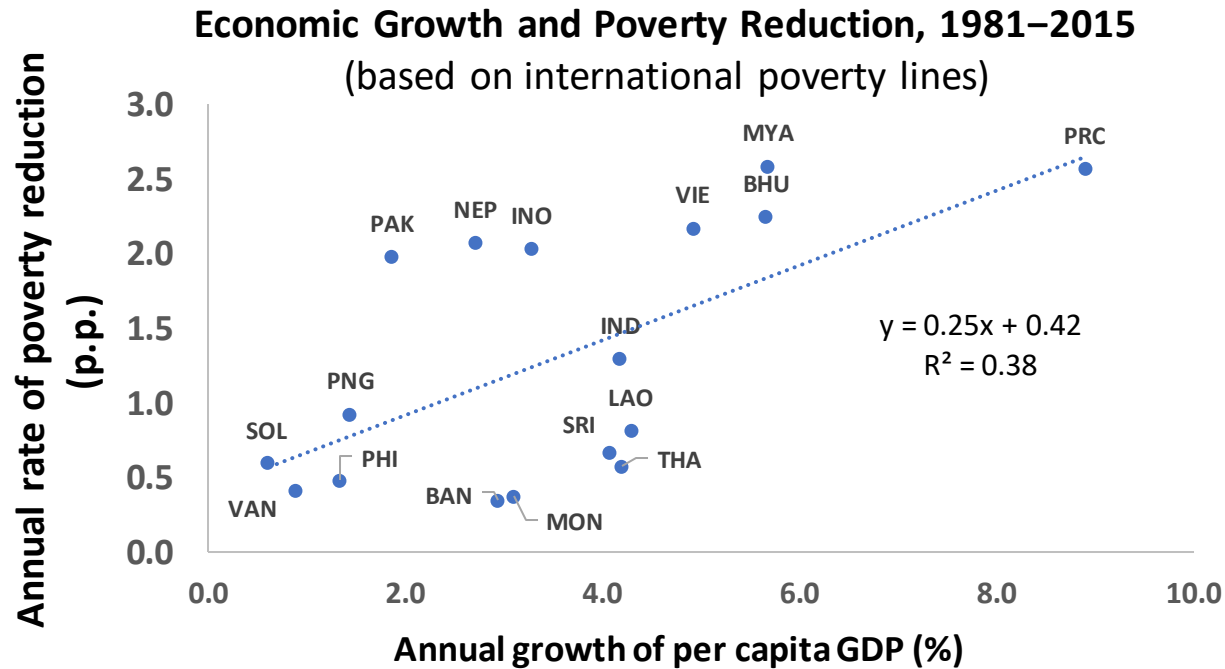
Notes: The NIEs comprise Hong Kong, China; the Republic of Korea; Singapore; and Taipei, China. ASEAN5 comprises Indonesia, Malaysia, the Philippines, Thailand, and Viet Nam. Rest of Developing Asia refers to all Asian Development Bank developing member economies excluding the PRC, India, the NIEs, and ASEAN5.

Sources: Asian Development Bank. Key Indicators Database. <https://kidb.adb.org/kidb/> (accessed 2 August 2019); and World Bank. World Development Indicators. <https://databank.worldbank.org/source/world-development-indicators> (accessed 2 August 2019); International Monetary Fund. World Economic Outlook Database. <https://www.imf.org/external/pubs/ft/weo/2019/01/weodata/index.aspx> (accessed 27 August 2019); and Asian Development Bank estimates.

- Good macro management provided the basis for sustained growth, and reforms in response to the Asian financial crisis laid the foundation for future resilience.

# (8) Promoting social inclusiveness and gender equality

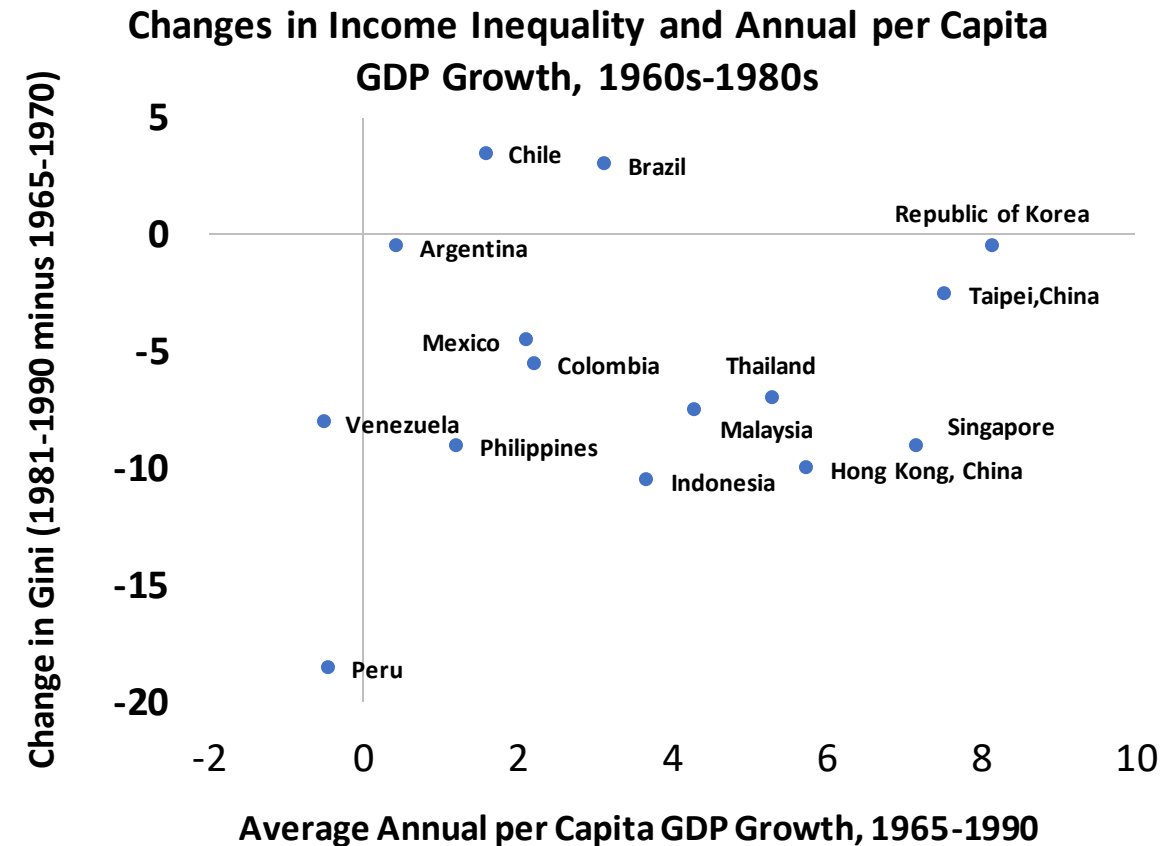
- Rapid economic growth and targeted policies led to rapid poverty reduction.



GDP = gross domestic product, p.p. = percentage point, BAN = Bangladesh, BHU = Bhutan, IND = India, INO = Indonesia, LAO = Lao People's Democratic Republic, MON = Mongolia, MYA = Myanmar, NEP = Nepal, PAK = Pakistan, PHI = Philippines, PNG = Papua New Guinea, PRC = People's Republic of China, SOL = Solomon Islands, SRI = Sri Lanka, THA = Thailand, VAN = Vanuatu, VIE = Viet Nam.

Notes: Poverty rates are measured using the \$1.90 per day international poverty line for extreme poverty. The initial year is 1981 for most economies, but 1984 for the Lao People's Democratic Republic and 1990 for Solomon Islands.

Sources: World Bank. PovcalNet Database. <http://iresearch.worldbank.org/PovcalNet/home.aspx> (accessed 7 November 2019); and World Bank. World Development Indicators. <https://data.worldbank.org> (accessed 2 August 2019).



GDP = gross domestic product

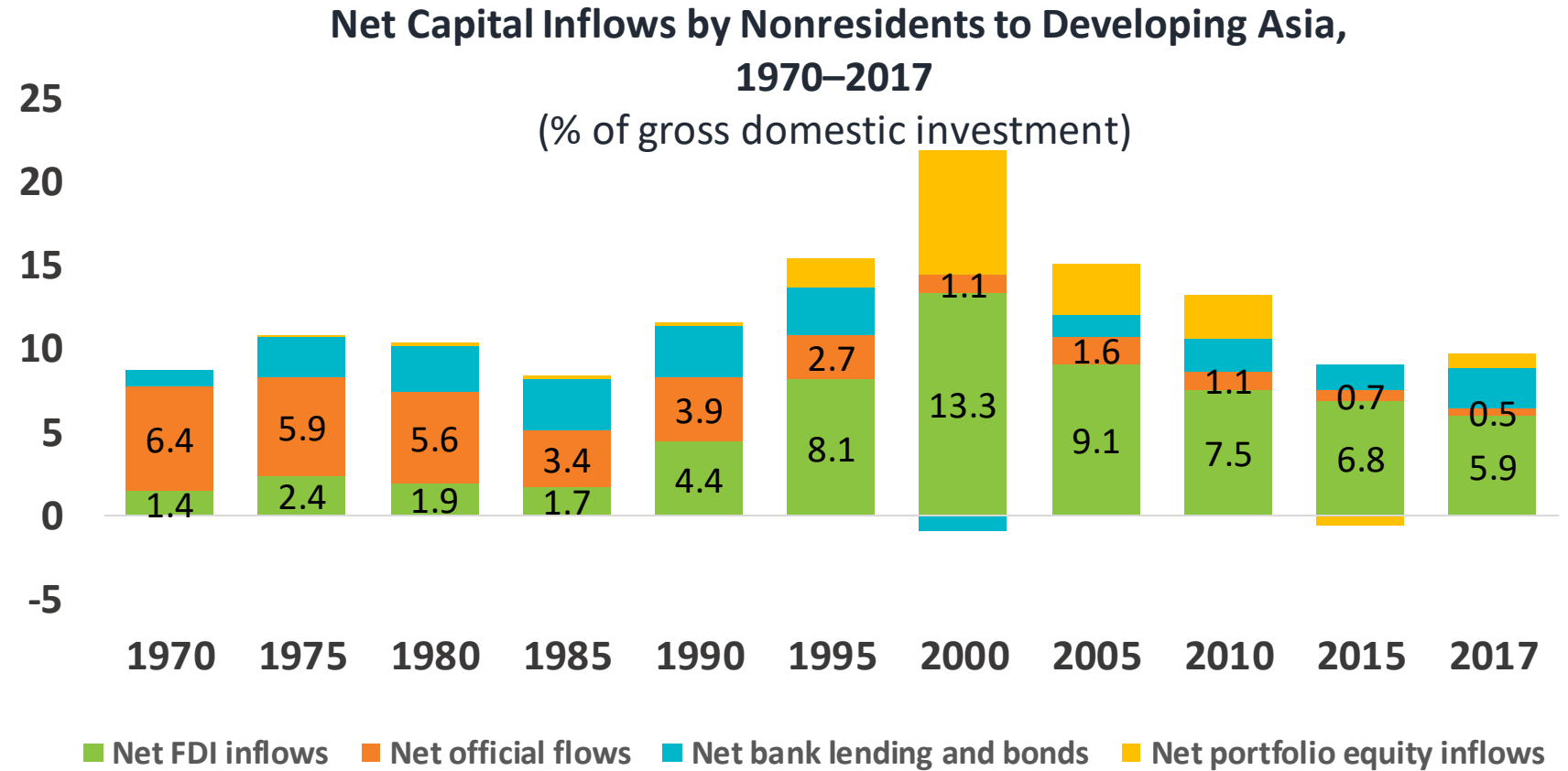
Sources: World Bank, The East Asian Miracle and World Bank. World Development Indicators.

<https://data.worldbank.org>.

- Asia had stable inequality in the 1960s–1980s, a pattern known as “growth with equity” in East Asia; since the 1990s, growth has been accompanied by rising inequality in some economies.

# (9) Engaging with development partners & promoting RCI

- Asia benefited from engaging with bilateral partners and multilateral development banks in investing in development, especially infrastructure, education, and health.
- In South Asia and Southeast Asia, development assistance financed 10–20% of gross domestic investment in the 1970s and 1980s.
- Such partnerships remain relevant to Asia’s changing needs, providing responsive support by combining financing with policy advice.

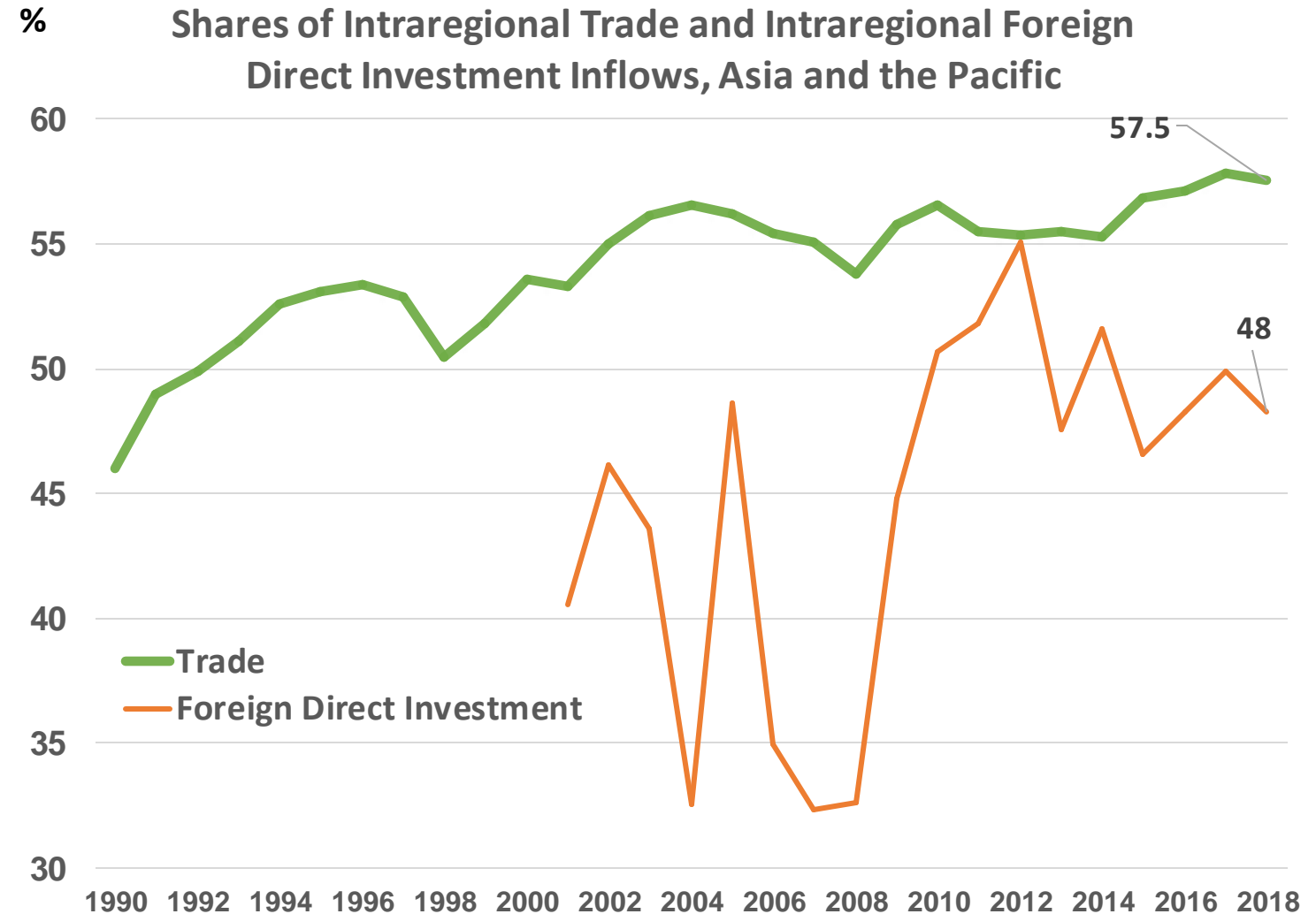


FDI = foreign direct investment.

Notes: Bonds are securities issued with a fixed rate of interest for a period of more than 1 year. They include net flows through cross-border public and publicly guaranteed and private nonguaranteed bond issues. Data are in current United States dollars. Sources: Asian Development Bank estimates; World Bank. World Development Indicators. <https://data.worldbank.org> (accessed 2 August 2019); United Nations Conference on Trade and Development (UNCTAD). UNCTADStat. <https://unctadstat.unctad.org> (accessed 28 August 2019); and Organisation for Economic Co-operation and Development (OECD). OECD Statistics. <https://stats.oecd.org> (accessed 26 August 2019).

# (9) Engaging with development partners & promoting RCI (cont.)

- Regional cooperation and integration (RCI) has played an important role in supporting Asian development by contributing to
  - peace and security;
  - intraregional trade and investment; and
  - regional public goods.
- In 2018, close to 60% of Asian trade were among Asian economies and 50% of FDI inflows were from within Asia and the Pacific region



Source: ADB calculations using data from International Monetary Fund. Direction of Trade Statistics. <https://www.imf.org/en/Data> (accessed September 2019).

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- Asia's challenges in post COVID-19 era

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# Issues subject to extensive debate

1. Is Asian development unique?
2. The role of industrial policy
3. Can industrialization be bypassed?
4. Importance of institutions



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# Asia's challenges in post COVID-19 era

Asia's development gaps with advanced countries remain large—in 2018, developing Asia's per capita GDP was just 13% of OECD level with remaining and emerging challenges, such as:

1. Overcoming the health crisis by “smart” approaches and achieving universal health coverage
2. Promoting innovation-based growth
3. Making growth more inclusive and narrowing gender gaps
4. Reopening education with better quality
5. Reducing large infrastructure gaps
6. Building back smarter
7. Responding to demographic change and population aging

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# Summary

- Asia's economic success owes much to creating better policy and stronger institutions. The book highlights the following:
  - 1) relying on markets with proactive state support;
  - 2) promoting structural transformation;
  - 3) investing in productive capacity;
  - 4) building human capital;
  - 5) opening trade and investment;
  - 6) maintaining macroeconomic stability;
  - 7) promoting social inclusiveness; and
  - 8) engaging with development partners and promoting RCI.
- Going forward, Asia still faces many challenges and there is no room for complacency.
- Asia must continue to maintain good policy, strengthen institutions, and contribute to the development of science and technology and to tackling global issues.

# Further readings

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# Thank you!

The soft copy of the book can be downloaded at

<https://www.adb.org/publications/asias-journey-to-prosperity>

